Oxi/FermPluri – *Test*

System for the identification of Gram negative, oxidase positive bacteria.

CODEBOOK

Ref. 71708

F52067
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Oxi/FermPluri – *Test*

CODEBOOK

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Important Notes

Before using the Oxi/FermPluri-*Test,* please read the instructions for use.

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS		
			Cat	Ypig	DNA
00000	*Acinetobacter lwoffii*		+	-	
	Kingella denitrificans	L	-	-	
	Empedobacter brevis	L	+	+	+
	Oligella urethralis	L	+	-	
	Sphingomonas paucimobilis	L	+	+	-
			Mot	Plump cocci	
00001	*Pasteurella multocida*	45%	-	-	
	Moraxella spp.	42%	-	+	
	Pseudomonas spp.	*	+/(-)		
	Alcaligenes faecalis	L	+		
			Mot		
00002	*Acinetobacter lwoffii*	L	-		
	Pseudomonas alcaligenes		+		
			Flagella		
00003	*Pseudomonas* spp.	*	pol/-		
	Pseudomonas alcaligenes	L	pol		
	Alcaligenes faecalis	L	peri		
00004	*Acinetobacter lwoffii*				
			Mot	DNA	TOB
00005	*Moraxella* spp.	44%	-	-	S
	Pseudomonas alcaligenes	34%	+	+	S
	Rhizobium (Agrobacterium) radiobacter	19%	+	-	R
	Bordetella bronchiseptica	L	+	-	S
	Oligella urethralis	L	-	-	S
			Mot		
00006	*Acinetobacter lwoffii*	82%	-		
	Stenotrophomonas maltophilia	16%	+		
			Flagella		Ypig
00007	*Bordetella bronchiseptica*	27%	peri		-
	Myroides odoratus	24%	-		+
	Moraxella spp.	18%	-		-
	Alcaligenes spp.	L	peri		-
	Delftia acidovorans	L	pol		-
	Ochrobactrum anthropi	L	peri		-/(+)
			Ypig		
00011	*Brevundimonas diminuta*	83%	-		
	Brevundimonas vesicularis	13%	+		
00012	*Stenotrophomonas maltophilia*				
			Mot	DNA	
00013	*Brevundimonas diminuta*	56%	+	-	
	Flavobacterium spp.	34%	-	v	
	Shewanella putrefaciens	10%	+	+	
00015	*Shewanella putrefaciens*				

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS		
00016	*Stenotrophomonas maltophilia*				
00017	*Shewanella putrefaciens*				
00042	*Stenotrophomonas maltophilia*				
00046	*Stenotrophomonas maltophilia*				
			Cet	Gel	AK
00103	*Pseudomonas stutzeri*	39%	-	-	S
	Achromobacter xylosoxidans subsp. *xylosoxidans*	25%	+	-	R
	Pseudomonas fluorescens	9%	+	+	S
			Mot	McC	DNA
00107	*Sphingobacterium multivorum*	45%	-	-	-
	Achromobacter spp.	26%	+	+	-
	Myroides odoratus	13%	-	+	+
			Mot	McC	DNA
00113	*Pseudomonas putida*	42%	+	+	R
	Flavobacterium spp.	38%	-	-	R
	Brevundimonas diminuta	19%	+	-	S
00115	*Flavobacterium* spp.				
			Mot		
00117	*Pseudomonas putida*	86%	+		
	Flavobacterium spp.	14%	-		
00123	*Chryseobacterium meningosepticum*				
00141	*Flavobacterium* spp.				
00147	*Sphingobacterium multivorum*				
00161	*Chryseobacterium meningosepticum*				
00165	*Rhizobium (Agrobacterium) radiobacter*				
00202	*Acinetobacter baumannii/calcoaceticus*				
			Cet		
00203	*Achromobacter xylosoxidans* subsp. *xylosoxidans*	64%	-		
	Pseudomonas stutzeri	31%	-		
			Rur	Cet	PB
00207	*Achromobacter* spp.	56%	+	-	S
	Ralstonia pickettii	23%	-	-	R
	Achromobacter xylosoxidans subsp. *xylosoxidans*	20%	-	+	S
			RUr		
00247	*Achromobacter* spp.	89%	+		
	Brevundimonas diminuta	16%	-		
			NO3		
00301	*Pseudomonas stutzeri*	84%	+		
	Brevundimonas diminuta	16%	-		
			Ypig		
00302	*Acinetobacter baumannii/calcoaceticus*		-		
	Pseudomonas oryzihabitans	L	+		

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS		
			Gel	AK	TOB
00303	*Pseudomonas fluorescens*	47%	+	S	R
	Pseudomonas putida	25%	-	S	S
	Achromobacter xylosoxidans subsp. *xylosoxidans*	12%	-	R	R
00305	*Rhizobium (Agrobacterium) radiobacter*				
			Ypig		
00306	*Acinetobacter baumannii/calcoaceticus*		-		
	Pseudomonas oryzihabitans	L	+		
			RUr		
00307	*Ralstonia pickettii*	63%	-		
	Achromobacter spp.	23%	+		
00313	*Pseudomonas putida*				
00317	*Pseudomonas putida*				
00342	*Pseudomonas oryzihabitans*	L			
			Ypig		
00346	*Achromobacter* spp.		-		
	Pseudomonas oryzihabitans	L	+		
			RUr	Cet	AK
00347	*Achromobacter* spp.	52%	+	-	S
	Ralstonia pickettii	41%	-	-	R
	Pseudomonas putida	7%	-	+	S
00353	*Pseudomonas putida*				
00365	*Rhizobium (Agrobacterium) radiobacter*				
00366	*Achromobacter* spp.				
00401	*Flavobacterium* spp.				
00403	*Flavobacterium* spp.				
00407	*Flavobacterium* spp.				
00411	*Flavobacterium* spp.				
00413	*Flavobacterium* spp.				
00417	*Flavobacterium* spp.				
00421	*Chryseobacterium meningosepticum*				
00441	*Flavobacterium* spp.				
00501	*Flavobacterium* spp.				
00503	*Flavobacterium* spp.				
00541	*Chryseobacterium meningosepticum*	L			
			DNA		
00543	*Chryseobacterium meningosepticum*	54%	+		
	Chryseobacteriumindologenes	46%	1		

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS	
			Mot	
01001	*Brevundimonas vesicularis*	67%	+	
	Pasteurella multocida	23%	-	
01003	*Moraxella* spp.			
01005	*Brevundimonas vesicularis*	L		
			Mot	Ypig
01007	*Moraxella* spp.	79%	-	-
	Sphingobacterium multivorum	11%	-	+
	Achromobacter spp.	10%	+	-
	Comamonas testosteroni/terrigena	L		
			Ypig	ßhem
01011	*Brevundimonas diminuta*	60%	-	-
	Brevundimonas vesicularis	40%	+	-
01201	*Brevundimonas vesicularis*			
01303	*Achromobacter* spp.			
			Mot	Flagella
02001	*Moraxella* spp.	51%	-	
	Alcaligenes faecalis	16%	+	Peri
	Pseudomonas stutzeri	15%	+	Pol
			Flagella	
02003	*Pseudomonas stutzeri*	52%	Pol	
	Alcaligenes spp.	35%	Peri	
			Mot	DNA
02005	*Shewanella putrefaciens*	46%	+	+
	Moraxella spp.	41%	-	-
	Alcaligenes faecalis	10%	+	-
			Mot	
02007	*Myroides odoratus*	51%	+	
	Alcaligenes spp.	36%	-	
	Pseudomonas spp.	12%	+	
02011	*Brevundimonas diminuta*			
			DNA	
02013	*Brevundimonas diminuta*	88%	-	
	Shewanella putrefaciens	12%	+	
02015	*Shewanella putrefaciens*			
02017	*Shewanella putrefaciens*			
			Cet	
02103	*Pseudomonas stutzeri*	88%	-	
	Achromobacter xylosoxidans subsp. *denitrificans*	9%	+	
			Mot	
02107	*Ralstonia pickettii*	83%	+	
	Myroides odoratus	14%	-	
02141	*Pseudomonas stutzeri*			

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS		
			Mot		
02147	*Ralstonia pickettii*	85%	+		
	Myroides odoratus	14%	-		
			Cet		
02203	*Pseudomonas stutzeri*	74%	-		
	Achromobacter xylosoxidans subsp. *xylosoxidans*	24%	+		
02301	*Pseudomonas stutzeri*				
			Cet	AK	PB
02303	*Pseudomonas stutzeri*	46%	-	S	S
	Ralstonia pickettii	40%	-	R	R
	Achromobacter xylosoxidans subsp. *xylosoxidans*	14%	+	R	S
02307	*Ralstonia pickettii*				
03001	*Brevundimonas diminuta*				
			Ypig		
04001	*Flavobacterium* spp.	L	+		
	Pasteurella multocida		-		
04002	*Stenotrophomonas maltophilia*				
04003	*Flavobacterium* spp.				
			Mot		
04005	*Sphingobacterium multivorum*	54%	-		
	Rhizobium (Agrobacterium) radiobacter	44%	+		
			Ypig		
04006	*Stenotrophomonas maltophilia*	83%	+		
	Achromobacter spp.	16%	-		
			Mot		
04007	*Bordetella bronchiseptica*	69%	+		
	Sphingobacterium multivorum	26%	-		
04042	*Stenotrophomonas maltophilia*				
04046	*Stenotrophomonas maltophilia*				
04102	*Acinetobacter baumannii/calcoaceticus*				
			Mot		
04106	*Achromobacter* spp.	53%	+		
	Acinetobacter baumannii/calcoaceticus	47%	-		
04107	*Sphingobacterium multivorum*				
			Mot		
04143	*Chryseobacterium meningosepticum*	79%	-		
	Achromobacter spp.	21%	+		
04147	*Sphingobacterium multivorum*				
04202	*Acinetobacter baumannii/calcoaceticus*				
04203	*Achromobacter* spp.				
04302	*Acinetobacter baumannii/calcoaceticus*				

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS	
			RUr	
04303	*Pseudomonas fluorescens*	79%	+	
	Achromobacter spp.	21%		
04306	*Acinetobacter baumannii/calcoaceticus*			
04323	*Achromobacter* spp.			
04365	*Rhizobium (Agrobacterium) radiobacter*			
			Ypig	
04401	*Pasteurella multocida*	48%	-	
	Flavobacterium spp.	47%	+	
04501	*Flavobacterium* spp.			
			TCBS	
05001	*Pasteurella multocida*		-	
	Vibrio alginolyticus		+	
05002	*Achromobacter* spp.			
05005	*Sphingobacterium multivorum*			
			Mot	
05007	*Sphingobacterium multivorum*	88%	-	
	Achromobacter spp.	12%	+	
05161	*Aeromonas hydrophila*			
05171	*Aeromonas hydrophila*			
05401	*Pasteurella multocida*			
			Flagella	
06003	*Pseudomonas stutzeri*	53%	Pol	
	Alcaligenes spp.	44%	Peri	
10000	*Acinetobacter lwoffii*			
			Flagella	
10001	*Pseudomonas* spp.	61%	Pol	
	Alcaligenes faecalis	23%	Peri	
			Mot	
10002	*Stenotrophomonas maltophilia*	85%	+	
	Acinetobacter lwoffii	15%	-	
			TOB	Flagella
10003	*Delftia acidovorans*	32%	R	Pol
	Pseudomonas alcaligenes	20%	S	Pol
	Achromobacter xylosoxidans subsp. *denitrificans*	13%		Peri
10006	*Stenotrophomonas maltophilia*			
			RUr	Flagella
10007	*Achromobacter xylosoxidans* subsp. *denitrificans*	34%	-	Peri
	Delftia acidovorans	26%	-	Pol
	Bordetella bronchiseptica	17%	+	Peri
10012	*Stenotrophomonas maltophilia*			

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS		
10013	*Pseudomonas* spp.	*			
10016	*Stenotrophomonas maltophilia*				
10017	*Shewanella putrefaciens*				
			AK		
10041	*Burkholderia cepacia*	59%	R		
	Brevundimonas diminuta	40%	S		
10042	*Stenotrophomonas maltophilia*				
			Ypig		
10043	*Burkholderia cepacia*	65%	-		
	Stenotrophomonas maltophilia	32%	+		
10046	*Stenotrophomonas maltophilia*				
			Ypig		
10047	*Stenotrophomonas maltophilia*	84%	+		
	Burkholderia cepacia	15%	-		
10052	*Stenotrophomonas maltophilia*				
10056	*Stenotrophomonas maltophilia*				
10057	*Stenotrophomonas maltophilia*				
10101	*Burkholderia cepacia*				
10102	*Acinetobacter baumannii/calcoaceticus*				
10103	*Burkholderia cepacia*				
			AK	CAR	Flagella
10107	*Burkholderia cepacia*	37%	R	R	Pol
	Pseudomonas mendocina	32%	S	S	Pol
	Achromobacter xylosoxidans subsp. *xylosoxidans*	22%	R	S	Peri
10123	*Burkholderia cepacia*				
10143	*Burkholderia cepacia*				
10147	*Burkholderia cepacia*				
10203	*Achromobacter xylosoxidans* subsp. *xylosoxidans*				
10207	*Achromobacter xylosoxidans* subsp. *xylosoxidans*				
10302	*Acinetobacter baumannii/calcoaceticus*				
			AK	CAR	PB
10303	*Burkholderia cepacia*	30%	R	R	R
	Pseudomonas putida	28%	S	S	S
	Achromobacter xylosoxidans subsp. *xylosoxidans*	25%	R	S	S
10306	*Acinetobacter baumannii/calcoaceticus*				
			Cet	AK	Flagella
10307	*Pseudomonas putida*	32%	+	S	Pol
	Ralstonia pickettii	28%	-	R	Pol
	Achromobacter xylosoxidans subsp. *xylosoxidans*	22%	+	R	Peri
10317	*Pseudomonas putida*				

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS		
10327	*Burkholderia cepacia*				
			AK		
10343	*Burkholderia cepacia*	69%	R		
	Pseudomonas putida	31%	S		
10401	*Vibrio parahaemolyticus*				
11101	*Brevundimonas diminuta*				
11763	*Vibrio cholerae*	L	serol		
			AK	Flagella	
12001	*Alcaligenes faecalis*	63%	v	Peri	
	Comamonas testosteroni/terrigena	14%	S	Pol	
	Delftia acidovorans	10%	R	Pol	
			Cet	TOB	
12003	*Alcaligenes faecalis (odorans)*	67%	+	S	
	Alcaligenes faecalis	17%	-	S	
	Achromobacter xylosoxidans subsp. *denitrificans*	15%	-	R	
12007	*Alcaligenes* spp.				
			DNA		
12013	*Brevundimonas diminuta*	81%	-		
	Shewanella putrefaciens	17%	+		
12017	*Shewanella putrefaciens*				
12101	*Pseudomonas stutzeri*				
12103	*Pseudomonas mendocina*				
12117	*Pseudomonas mendocina*				
12203	*Achromobacter xylosoxidans* subsp. *xylosoxidans*				
			Cet		
12207	*Achromobacter xylosoxidans* subsp. *xylosoxidans*	80%	+		
	Ralstonia pickettii	20%	-		
12301	*Pseudomonas stutzeri*				
			AK		
12303	*Pseudomonas mendocina*	55%	S		
	Achromobacter xylosoxidans subsp. *xylosoxidans*	37%	R		
			Cet	AK	TE
12307	*Ralstonia pickettii*	70%	-	R	S
	Pseudomonas mendocina	20%	+	S	S
	Achromobacter xylosoxidans subsp. *xylosoxidans*	10%	+	R	R
12347	*Ralstonia pickettii*				
12357	*Pseudomonas putida*				
14002	*Stenotrophomonas maltophilia*				
14003	*Stenotrophomonas maltophilia*				
14006	*Stenotrophomonas maltophilia*				

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS		
			Flagella		
14007	*Bordetella bronchiseptica*		Peri		
	Delftia acidovorans	L	Pol		
14012	*Stenotrophomonas maltophilia*				
14042	*Stenotrophomonas maltophilia*				
14046	*Stenotrophomonas maltophilia*				
14047	*Stenotrophomonas maltophilia*				
14102	*Acinetobacter baumannii/calcoaceticus*				
14306	*Acinetobacter baumannii/calcoaceticus*				
			Gel		
14401	*Plesiomonas shigelloides*	87%	-		
	Vibrio parahaemolyticus	13%	+		
15021	*Vibrio alginolyticus*				
15421	*Vibrio alginolyticus*				
			Gel	AK	TOB
20103	*Pseudomonas putida*	68%	-	S	S
	Pseudomonas fluorescens	17%	+	S	S
	Achromobacter xylosoxidans subsp. *xylosoxidans*	11%	-	R	R
			42C	TOB	
20107	*Pseudomonas putida*	70%	-	S	
	Pseudomonas fluorescens	12%	-	S	
	Pseudomonas aeruginosa	10%	+	R	
20143	*Pseudomonas putida*				
			AK		
20203	*Achromobacter xylosoxidans* subsp. *xylosoxidans*	82%	R		
	Pseudomonas putida	18%	S		
			42C	TOB	
20303	*Pseudomonas putida*	53%	+	S	
	Pseudomonas aeruginosa	36%	-	S	
	Pseudomonas fluorescens	11%	-	R	
20307	*Pseudomonas aeruginosa* *Pseudomonas putida* *Pseudomonas fluorescens*				
20313	*Pseudomonas putida*				
20323	*Pseudomonas aeruginosa*				
20327	*Pseudomonas aeruginosa*				
			AK		
22103	*Pseudomonas aeruginosa*	62%	S		
	Achromobacter xylosoxidans subsp. *xylosoxidans*	33%	R		
22303	*Pseudomonas aeruginosa*				
22307	*Pseudomonas aeruginosa*				

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS	
22323	*Pseudomonas aeruginosa*			
22327	*Pseudomonas aeruginosa*			
24107	*Pseudomonas fluorescens*			
24303	*Pseudomonas fluorescens*			
24307	*Pseudomonas fluorescens*			
30003	*Achromobacter xylosoxidans* subsp. *denitrificans*	L		
			AK	Flagella
30007	*Pseudomonas putida*		S	Pol
	Bordetella bronchiseptica	L	S	Peri
	Achromobacter xylosoxidans subsp. *xylosoxidans*	L	R	Peri
			AK	CAR
30103	*Pseudomonas mendocina*	47%	S	S
	Pseudomonas putida	24%	S	R
	Burkholderia cepacia	20%	R	R
			42C	
30107	*Pseudomonas mendocina*	57%	+	
	Pseudomonas putida	29%	-	
30141	*Burkholderia cepacia*	L		
30203	*Achromobacter xylosoxidans* subsp. *xylosoxidans*	L		
			42C	TOB
30303	*Pseudomonas putida*	65%	-	S
	Pseudomonas aeruginosa	21%	+	S
	Pseudomonas fluorescens	8%	-	R
			42C	
30307	*Pseudomonas putida*	52%	-	
	Pseudomonas aeruginosa	40%	+	
30313	*Pseudomonas putida*			
			42C	
30317	*Pseudomonas putida*	89%	-	
	Pseudomonas aeruginosa	9%	+	
30323	*Pseudomonas aeruginosa*			
30327	*Pseudomonas aeruginosa*			
32007	*Achromobacter xylosoxidans* subsp. *denitrificans*	67%		
	Alcaligenes spp.	28%		
32103	*Pseudomonas mendocina*			
32107	*Pseudomonas mendocina*			
32113	*Pseudomonas mendocina*			
32137	*Pseudomonas aeruginosa*			
32143	*Burkholderia pseudomallei*		serol	
32147	*Burkholderia pseudomallei*		serol	

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS	
32163	*Burkholderia pseudomallei*		serol	
32203	*Achromobacter xylosoxidans* subsp. *xylosoxidans*			
32217	*Pseudomonas aeruginosa*			
32303	*Pseudomonas aeruginosa*			
32307	*Pseudomonas aeruginosa*			
32313	*Pseudomonas aeruginosa*			
32317	*Pseudomonas aeruginosa*			
32323	*Pseudomonas aeruginosa*			
32327	*Pseudomonas aeruginosa*			
32333	*Pseudomonas aeruginosa*			
32337	*Pseudomonas aeruginosa*			
33307	*Pseudomonas aeruginosa*			
			42C	
34307	*Pseudomonas mendocina*	66%	+	
	Pseudomonas fluorescens	34%	-	
34401	*Plesiomonas shigelloides*			
34501	*Plesiomonas shigelloides*			
34541	*Plesiomonas shigelloides*			
36103	*Pseudomonas mendocina*			
40001	*Brevundimonas vesicularis*	50%		
	Sphingomonas paucimobilis	35%		
			Mot	
40003	*Sphingomonas paucimobilis*	59%	+	
	Flavobacterium spp.	36%	-	
40007	*Achromobacter* spp.			
			Mot	Ypig
40011	*Brevundimonas diminuta*	56%	+	-
	Brevundimonas vesicularis	37%	+	+
	Flavobacterium spp.	7%	-	+
40101	*Flavobacterium* spp.			
			Gel	
40103	*Pseudomonas fluorescens*	72%	+	
	Pseudomonas putida	16%	-	
40141	*Chryseobacterium meningosepticum*			
40201	*Brevundimonas vesicularis*			
			ßhem	
40302	*Acinetobacter baumannii/calcoaceticus*		-	
	Acinetobacter haemolyticus	L	+	

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS	
			Gel	
40303	*Pseudomonas fluorescens*	89%	+	
	Pseudomonas putida	11%	-	
40306	*Acinetobacter baumannii/calcoaceticus*			
40313	*Pseudomonas putida*			
			RUr	
40347	*Achromobacter* spp.	75%	+	
	Pseudomonas putida	25%	-	
40401	*Flavobacterium* spp.			
40403	*Chryseobacterium indologenes*			
			DNA	
40421	*Chryseobacterium meningosepticum*	86%	+	
	Chryseobacterium indologenes	10%	-	
40423	*Flavobacterium* spp.			
40501	*Flavobacterium* spp.			
			Mot	DNA
40521	*Chryseobacterium meningosepticum*	71%	-	+
	Vibrio parahaemolyticus	15%	+	
	Chryseobacterium indologenes	14%	-	-
40567	*Chryseobacterium indologenes*			
41347	*Achromobacter* spp.			
41541	*Chryseobacterium indologenes*			
44046	*Achromobacter* spp.			
44102	*Acinetobacter baumannii/calcoaceticus*			
44107	*Achromobacter* spp.			
44302	*Acinetobacter baumannii/calcoaceticus*			
44303	*Pseudomonas fluorescens*			
44306	*Acinetobacter baumannii/calcoaceticus*			
44326	*Achromobacter* spp.			
44347	*Achromobacter* spp.			
44523	*Chryseobacterium meningosepticum*			
44561	*Flavobacterium* spp.			
44571	*Vibrio parahaemolyticus*			
45141	*Aeromonas hydrophila*			
45161	*Aeromonas hydrophila*			
			ßhem	
45163	*Aeromonas hydrophila*		+	
	Aeromonas caviae		-	
45373	*Aeromonas hydrophila*			

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS		
45173	*Aeromonas hydrophila*				
45563	*Aeromonas hydrophila*				
45571	*Aeromonas hydrophila*				
45573	*Aeromonas hydrophila*				
45575	*Aeromonas hydrophila*				
50101	*Burkholderia cepacia*				
50103	*Burkholderia cepacia*				
			AK	CAR	
50107	*Burkholderia cepacia*	68%	R	R	
	Pseudomonas mendocina	14%	S	S	
	Pseudomonas putida	10%	S	R	
50143	*Burkholderia cepacia*				
50302	*Acinetobacter baumannii/calcoaceticus*				
			AK	TOB	
50303	*Pseudomonas fluorescens*	50%	S	R	
	Burkholderia cepacia	25%	R	R	
	Pseudomonas putida	24%	S	S	
50306	*Acinetobacter baumannii/calcoaceticus*				
			Gel		
50307	*Pseudomonas fluorescens*	55%	+		
	Pseudomonas putida	39%	-		
50323	*Burkholderia cepacia*				
			AK		
50343	*Burkholderia cepacia*	68%	R		
	Pseudomonas putida	32%	S		
			AK		
50347	*Pseudomonas putida*	78%	S		
	Burkholderia cepacia	22%	R		
50501	*Vibrio parahaemolyticus*				
50541	*Vibrio parahaemolyticus*				
			Sali		
50543	*Vibrio vulnificus*	L	+		
	Vibrio cholerae	L	-	serol	
50560	*Vibrio parahaemolyticus*				
50561	*Vibrio parahaemolyticus*				
			VP	PB	
51563	*Vibrio cholerae*	L	var	var	serol
	Vibrio mimicus	L	-	S	
52571	*Vibrio parahaemolyticus*				

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS
			42C
54103	*Pseudomonas mendocina*	68%	+
	Pseudomonas fluorescens	14%	-
			42C
54107	*Pseudomonas mendocina*	90%	+
	Pseudomonas fluorescens	10%	-
54160	*Vibrio alginolyticus*		
54161	*Vibrio alginolyticus*		
54306	*Acinetobacter baumannii/calcoaceticus*		
			Gel
54401	*Plesiomonas shigelloides*	82%	-
	Vibrio parahaemolyticus	18%	+
			Gel
54441	*Plesiomonas shigelloides*	79%	-
	Vibrio parahaemolyticus	21%	+
			Gel
54501	*Plesiomonas shigelloides*	72%	-
	Vibrio parahaemolyticus	28%	+
54523	*Vibrio alginolyticus*		
			Gel
54541	*Plesiomonas shigelloides*	68%	-
	Vibrio parahaemolyticus	32%	+
54543	*Vibrio vulnificus*	L	
54560	*Vibrio parahaemolyticus*	L	
54561	*Vibrio parahaemolyticus*	87%	
	Vibrio alginolyticus	13%	
54563	*Vibrio alginolyticus*		
55131	*Vibrio alginolyticus*		
			NO
55161	*Vibrio alginolyticus*	74%	S
	Aeromonas hydrophila	26%	R
			NO
55163	*Aeromonas hydrophila*	52%	R
	Vibrio alginolyticus	48%	S
55167	*Aeromonas hydrophila*		
			NO
55173	*Aeromonas hydrophila*	86%	R
	Vibrio alginolyticus	14%	S
55523	*Vibrio alginolyticus*		
55543	*Vibrio cholerae*	L	serol

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS			
			NO			
55561	*Vibrio alginolyticus*	56%	S			
	Aeromonas hydrophila	44%	R			
			NO	ONPG	VP	PB
55563	*Aeromonas hydrophila*	71%	R	+	+	
	Vibrio alginolyticus	29%	S	-	+	
	Vibrio cholerae	L	serol	+	+/-	
	Vibrio mimicus	L			-	R/S
	Aeromonas veronii bv. veronii	L		+	+	S
55573	*Aeromonas hydrophila*					
55761	*Vibrio parahaemolyticus*	L				
56571	*Vibrio parahaemolyticus*					
			Gel			
60103	*Pseudomonas fluorescens*	52%	+			
	Pseudomonas putida	48%	-			
			Gel			
60303	*Pseudomonas fluorescens*	66%	+			
	Pseudomonas putida	34%	-			
			Gel			
60307	*Pseudomonas fluorescens*	57%	+			
	Pseudomonas putida	43%	-			
60313	*Pseudomonas putida*					
60517	*Pseudomonas putida*					
62303	*Pseudomonas putida*					
62307	*Pseudomonas putida*					
			Col			
64101	*Chromobacterium violaceum*	L	violet			
65161	*Aeromonas caviae*	L				
65163	*Aeromonas hydrophila*					
65167	*Aeromonas hydrophila*	L				
			Sali			
65561	*Aeromonas hydrophila*		+			
	Aeromonas veronii bv. veronii bv. sobria	L	-			
65563	*Aeromonas hydrophila*					
65571	*Aeromonas hydrophila*					
65573	*Aeromonas hydrophila*					
65575	*Aeromonas hydrophila*	L				
			TE			
70143	*Burkholderia pseudomallei*	88%	S	serol		
	Burkholderia cepacia	8%	R			
70167	*Burkholderia pseudomallei*			serol		

BIOCODE	ORGANISM	%	CONFIRMATORY TESTS
			Gel
70303	*Pseudomonas putida*	65%	-
	Pseudomonas fluorescens	33%	+
			Gel
70307	*Pseudomonas putida*	74%	-
	Pseudomonas fluorescens	25%	+
70313	*Pseudomonas putida*		
70317	*Pseudomonas putida*		
70323	*Burkholderia cepacia*		
70347	*Pseudomonas putida*		
72003	*Pseudomonas putida*		
72103	*Pseudomonas mendocina*		
			42C
72303	*Pseudomonas mendocina*	78%	+
	Pseudomonas putida	22%	-
			42C
72307	*Pseudomonas mendocina*	78%	+
	Pseudomonas putida	22%	-
74541	*Plesiomonas shigelloides*		
75163	*Aeromonas hydrophila*		
75171	*Aeromonas hydrophila*		
75366	*Burkholderia cepacia*	L	
75563	*Aeromonas hydrophila*		
75766	*Burkholderia cepacia*	L	

Appendix 1. List of abbreviations used in the Biocode Database.

Abbreviation	**Explanation**
%	Percent in the headline of the biocode database indicates likelihood in %
42C	Growth at 42°C
AK	Amikacin, disk-diffusion test on Mueller Hinton II agar
CAR	Carbenicillin, disk-diffusion test on Mueller Hinton II agar
Cat	Catalase test with H_2O_2, Catalase/OxyTest
Cet	Cetrimide, growth Pseudomonas (Cetrimide) Agar
CF Tests	Confirmatory test
Col	Colony coloration (non-diffusible pigment) on Tryptic Soy Agar after 2-3 days incubation at optimal growth temperature
DNA	DNase test, DNase Test Agar
Flagella	Type of flagellation: either pol (polar) or peri (peritrichous)
Gel	Gelatinase, Nutrient Gelatin
L	Profile number determined with limited number of strains only
McC	Growth on MacConkey II Agar
Mot	Motility
NO3	Nitrate reduction to nitrite, Nitrate Test
NO	Novobiocin, disk-diffusion test on Mueller Hinton II agar
ONPG	ONPG reaction, 2-nitrophenyl-ß-D-glucopyranoside
PB	Polymyxin B, 2-nitrophenyl beta d-glucopyranoside
R	Resistant
RUr	Rapid Urease, 18-24 h incubation
S	Susceptible
Sali	Acid formation from salicin, Salicin Test
Serol	Confirm identification with serological tests
ßhem	Beta hemolysis on Colubia Agar (Sheep Blood 5%)
TCBS	Growth on TCBS Agar
TE	Tetracyclin, disk-diffusion test on Mueller Hinton II agar
TOB	Tobramycin, disk-diffusion test on Mueller Hinton II agar
Var	Variable result (either + o -, R o S) possible
VP	Voges-Proskauer reaction, VP Test Kit
Ypig	Yellow pigment on Tryptic Soy Agar

Appendix 2. Recommended Procedures for Confirmatory Tests.

1. Growth at 42°C (42C)

Prepare a light suspension in a suitable liquid medium (e.g. Tryptic Soy Broth) with not more than 1 colony of the isolate and incubate at 42°C (preferably in a water bath) for 18 to 24 hours. Growth is indicated by an increase of turbidity of the medium.

2. Antimicrobial disc diffusion tests

Conventional disc diffusion procedures and the zone size limits usually used should be applied (use Mueller Hinton II Agar plates). Consider both „intermediate“ and „susceptible“ zones as susceptible (S) for this purpose.

The following discs are used:

Abbreviation	Antimicrobial	Concentration
AK	Amikacin	30 µg
CAR	Carbenicillin	100 µg
NO	Novobiocin	30 µg
PB	Polymyxin B	300 IU
TE	Tetracycline	30 µg
TOB	Tobramycin	10 µg

3. Catalase (Cat)

Apply a drop of freshly prepared 3% hydrogen peroxide (H2O2) to a glass slide. With a loop, remove a colony of the isolate
from a 24 to 48 h plate and mix it with the hydrogen peroxide drop. Bubble formation and foaming indicates a positive reaction. Alternatively, a drop of 3% hydrogen peroxide may be applied to the colonies grown on Tryptic Soy Agar. Do not apply the hydrogen peroxide to blood agars, false positive reaction may occur.
Alternatively use Catalase/OxyTest according to the procedure reported on the instructions sheet.

4. Cetrimide (Cet)

Streak the isolate on Pseudomonas (Cetrimide) Agar. Incubate for 18 to 24 hours at the optimal temperature of the isolate. Growth on this medium means positive.

5. Colony coloration (Col)

Streak the isolate on Trypticase Soy Agar and incubate for 2 to 3 days at the optimal temperature. Inspect for colony coloration (normal, non-pigmented colonies appear white, gray, or pale yellow). Pigmented colonies appear yellow to brownish or violet, depending on the species.

6. DNase activity (DNA)

Streak the isolate on DNase Test Agar. Incubate for 2 days at 36 +/- 1° C. Flood the plate with 1 N HCl and wait for about 1 min. A clear zone is produced around DNase positive colonies while a homogeneously turbid medium indicates DNase negativity.

7. Flagella stain

A variety of methods is given in the literature, all of which require some experience.

8. Gelatinase (Gel)

Stab-inoculate a tube with Nutrient Gelatin with a heavy inoculum and incubate at room temperature. A positive test is indicated by liquefaction of the medium at the surface within 18 to 48 hours. Negative reaction: no liquefaction.

9. Growth on MacConkey II Agar (McC)

Prepare a light suspension of the isolate in saline or Tryptic Soy Broth and immediately inoculate a plate of MacConkey II Agar with a loopful of this suspension. Incubate at 36+/-1°C for 20 to 24 hours. If the strain shows poor growth on a blood plate incubated at 36+/-1°C, incubate the MacConkey II Agar plate at a lower temperature, but not longer than 48 hours.

10. Motility (Mot)
Place a drop of a broth culture of the isolate which has been incubated for 6 to 8 hours at 25°C onto a slide. Place a cover slip onto the slide and observe by phase contrast microscopy (oil immersion) for motile bacteria. A regular oil immersion objective may also be used if the microscopic field can be darkened. True motility is shown by a rapid change in position of individual bacterial cells relative to other cells.

11. Nitrate reduction (NO3)
Inoculate a tube of Nitrate Broth with a loopful of organisms taken from a pure culture. Incubate for 18 to 48 h at 32 to 36°C with cap slightly loosened. Evaluate the test by adding 0.5 ml of each of the two nitrate reagents to detect the formation of nitrite from nitrate (red coloration). If the reaction is negative (colorless), add some zinc dust to detect unused nitrate. If the color turns red after the addition of zinc dust, nitrate has not been used (negative reaction); if it remains colorless after the addition of zinc dust, nitrate has been reduced passed nitrite (denitrification, positive reaction).
Alternatively use Nitrate Test according to the procedure reported on the instructions sheet.

12. ONPG
The hydrolysis of ONPG (ortho-nitrophenyl-ß-D-galactoside) can be tested by means of an ONPG Disc. A yellow color indicates a positive reaction.

13. Rapid urease (RUr)
A strong positive urea reaction in the Urea reaction chamber of the Oxi/FermPluri-*Test* at 18 to 24 hours of incubation, indicated by a strong pink coloration is positive.

14. Acid formation from salicin (Sali)
Certain bacteria produce acids from salicin. Use CTA Medium with Salicin for this test and follow the instructions given for this medium.
Alternatively use Salicin Test according to the procedure reported on the instructions sheet.

15. Serology (serol)
The identification results *Vibrio cholerae* and *Pseudomonas pseudomallei* must be confirmed by serological tests.

16. Beta hemolysis (ßhem)
Streak the isolate on a Columbia Agar (Sheep Blood 5%) plate. Incubate at the optimal temperature of the isolate not longer than 48 hours. Clear zones around the colonies indicate beta hemolysis.

17. Growth on TCBS Agar (TCBS)
Streak the isolate on a TCBS Agar plate. An incubation temperature of 30 to 36°C is optimal. TCBS Agar is a selective differential medium for *Vibrio* species.

18. Voges-Proskauer Reaction (VP)
Certain bacterial species produce acetoin (acetyl methyl carbinol) from glucose. The test can be conducted used the VP Test Kit following the procedure reported on the instructions sheet.

Appendix 3. Availability of media and reagents needed for the performance of the confirmatory tests.

Procedure number according to Appendix 2	Name of medium or reagent	Ref.
1, 9	Tryptic Soy Broth	24444
2	Mueller Hinton II Agar	10031
2	AK 30	9004
2	CAR 100	9009
2	NO 30	9063
2	PB 300	9120
2	TE 30	9043
2	TOB 10	9044
3	Catalase Oxy/Test	88023
3, 5	Tryptic Soy Agar	10037
4	Pseudomonas (Cetrimide) Agar	10033
6	DNase Test Agar	10013
8	Nutrient Gelatin	24153
9	MacConkey II Agar	10603
11	Nitrate Broth	610322
11	Nitrate Test	88009
12	ONPG Disc	88105
14	Salicin Test	88217
16	Columbia Agar (Sheep Blood 5%)	10025
17	TCBS Agar	11195
18	VP Test Kit	88035

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